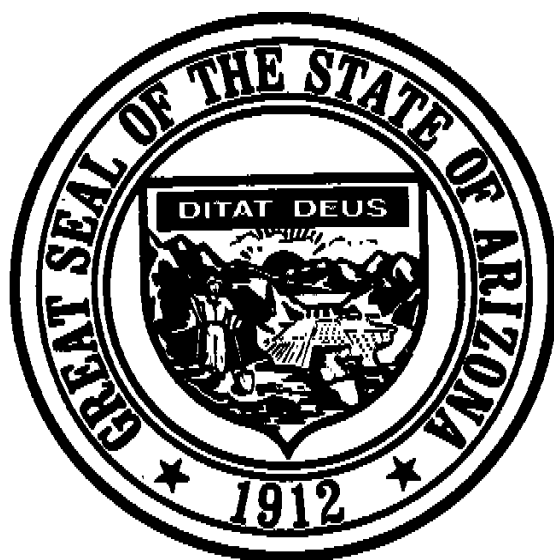


# **ARIZONA STATE BOARD OF NURSING**

**Doug Ducey**  
Governor

**Joey Ridenour**  
Executive Director



## **SUMMARY AND ANALYSIS OF ANNUAL REPORTS FROM ARIZONA NURSING EDUCATION PROGRAMS**

**Calendar Year 2017**  
**Part I: Prelicensure Nursing Programs,**  
**Faculty and Student Data**

**ARIZONA STATE BOARD OF NURSING  
SUMMARY AND ANALYSIS OF  
ANNUAL REPORTS FROM ARIZONA NURSING  
EDUCATION PROGRAMS CALENDAR YEAR 2017**

**Report compiled and prepared by:**

**David P Hrabe, PhD, RN, NC-BC  
Education Program Administrator**

**Kathy Malloch, PhD, MBA, RN, FAAN  
Associate Director of Education and Evidence-Based Regulation**

**Annual Report Education Subcommittee Members:**

Debra J. McGinty, RN PhD (chair)  
Dean of Nursing and Allied Health; Northland Pioneer College  
Pam Fuller, EdD, MN, RN, Phoenix Campus President, Chamberlain College of Nursing  
Ronda Collazo, RN, PhD, Division Chair, Nursing and Allied Health  
Estrella Mountain Community College  
Tina Berry, PhD, MBA, HCM, RN Director of Nursing; EC-Central Arizona College  
Lyn Ledbetter, AZBN, Education Department

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## *Arizona State Board of Nursing*

### **SUMMARY AND ANALYSIS OF ANNUAL REPORTS FROM ARIZONA NURSING EDUCATION PROGRAMS Calendar Year 2017**

#### **INTRODUCTION**

The Mission of the Arizona State Board of Nursing (AZBN) is to protect the public health, safety and welfare through the safe and competent practice of nurses and nursing assistants. Continuing the methodology used to develop the 2016 report (Malloch, McGinty, Fuller, Collazo, Berry & Ledbetter, 2017), the education program survey was prepared by both the Education Board staff and members of the Education Committee. Collaboratively, the Education Department and Education Committee continue to provide the most accurate and evidence-driven information about the state-of-the-state of nursing education in Arizona.

Members of the Education Department and the Education Committee continued their work toward the following goals established in 2017 (Malloch et al., 2017):

- Revise the annual education survey to include metrics used by nursing accrediting organizations (ACEN, CCNE) and workforce initiatives.
- Collect data via electronic survey.
- Provide statewide and national benchmark data.
- Report data that can be readily used by stakeholders for making evidence-based decisions regarding their operation.
- Update the report to include infographics for easy interpretation of main conclusions.

An ongoing goal of the AZBN staff and Education Committee is to examine the work of the National Council of State Boards of Nursing (NCSBN) leaders and their Regulation 2030 Initiative, which recommends establishing a multi-dimensional, contemporary approach to nursing regulation. The Education Department and the Education Committee are using the Benton (2017) monograph to guide expansion of their research programs to address collaboration, performance measures/metrics, governance, and data/technology-driven evaluation. This report (Parts I and II) introduces new data collection, analysis, and communication methods.

## **BACKGROUND: ANNUAL REPORTS**

Since 2001, the Arizona State Board of Nursing (Board) has requested that pre-licensure nursing programs submit an annual report for the purpose of gathering admission and graduation data. Commencing in 2003, programs supplied data regarding open student placements on the first day of class, faculty, post-licensure students, and number of applicants that met qualifications but were not admitted to the semester for which they applied. Attrition data has been provided since 2004. Starting in 2006, programs were asked to identify students who graduated on time, within 100%, 150% or took longer than 150% of the allotted time to complete the program. In 2008, programs were asked to identify the faculty to student ratio for didactic classes. In 2013, programs were asked to report on their faculty and student diversity. For 2017, some items were eliminated to streamline the report and to align as closely as possible with accrediting organizations' reporting requirements.

This year's report is divided into Part I and Part II. Part I provides demographic information about Arizona's nursing faculty, nursing students and nursing programs. Part II describes the development of an enhanced program quality index for prelicensure programs and its relationship to the NCSBN's CORE Initiative (NCSBN, 2016). In addition, data related to concurrent enrollment and graduate nursing programs is presented.

We gratefully acknowledge the collaboration of the following for their assistance with survey form development and/or sharing data used in this report:

- Arizona's Nursing Education Programs
- Accreditation Commission for Education in Nursing (ACEN)
- American Association of College of Nursing (AACN)
- Commission on Collegiate Nursing Education (CCNE)
- National Council of State Boards of Nursing (NCSBN)
- Mary Mays, PhD, Consulting Statistician
- Shannon Campbell, MS, RN, Doctor of Nursing Practice Student, Arizona State University

## ARIZONA NURSING FACULTY AND NURSING STUDENTS

Table 1. displays demographic (gender, race/ethnicity, age and education) of Arizona's nursing students and faculty compared to U.S. Nursing Faculty as well as Arizona's overall population.

**Table 1. Nursing Faculty and Nursing Students Demographic Characteristics**

<b>Attribute*</b>	<b>Arizona Nursing Students<sup>a</sup> <i>n</i> (%)</b>	<b>Arizona Nursing Faculty<sup>b</sup> <i>n</i> (%)</b>	<b>U.S. Nursing Faculty<sup>c</sup> <i>n</i> (%)</b>	<b>Arizona Adults<sup>d</sup> <i>n</i> (%)</b>
<b>Gender</b>				
Male	1133 (17)	126 (10)	86 ( 6)	2.5M (49)
Female	5376 (82)	1188 (90)	1233 (94)	2.6M (51)
Not Answered/Other	30 ( 1)	0 ( 0)	0 ( 0)	0 ( 0)
<b>Race/Ethnicity</b>				
Asian	341 ( 5)	35 ( 2)	30 ( 2)	199K ( 3)
Black/African-American	319 ( 5)	76 ( 6)	90 ( 6)	270K ( 4)
Hispanic/Latino	1615 (25)	114 ( 9)	31 ( 2)	2.0M (31)
Native American/Alaska Native	102 ( 1)	9 (0.7)	8 (0.6)	266K ( 4)
Native Hawaiian/Pacific Islander	23 (0.3)	4 (0.3)	8 (0.6)	12K (0.2)
White (non-Hispanic)	3671 (56)	974 (74)	1210 (86)	3.8M (56)
Two or more races	229 ( 4)	11 (0.8)	31 ( 2)	140K ( 2)
Not answered/Other	230 ( 4)	95 ( 7)	7 (0.5)	8K (0.1)
<b>Age</b>				
<= 30 Millennial	4068 (66)	58 ( 6)	121 ( 9)	1.12M (22)
31-40 ~	1355 (22)	241 (27)	254 (20)	868K (17)
41-50 Gen X	473 ( 8)	225 (25)	264 (21)	838K (16)
51-60 ~	147 ( 2)	212 (23)	324 (25)	826K (16)
>= 61 Baby Boomer	7 (0.1)	145 (16)	318 (25)	1.46M (29)
Not answered	104 ( 2)	22 ( 2)	0 ( 0)	0 ( 0)
<b>Highest Education</b>				
< Bachelor	6539 (100)	0 ( 0)	216 (16)	3.8M (75)
Bachelor	0 ( 0)	473 (35)	351 (27)	827K (16)
Masters	0 ( 0)	771 (58)	503 (38)	464K ( 9)
Doctorate	0 ( 0)	92 ( 7)	248 (19)	

\* Attribute data were not gathered from a single source/sample/time, so total sample size varies by attribute within each group.

M = million; K = thousand; ~ = split decade

<sup>a</sup> Data were gathered on all pre-licensure students attending Arizona schools offering PN and/or RN programs in 2017. Prior education data were not collected on students (e.g., non-US or non-nursing degrees).

<sup>b</sup> Data were gathered on all faculty (full-time and part-time) teaching pre-licensure students in Arizona schools offering PN and/or RN programs in 2017. Faculty constitute approximately 1.5% of Arizona's RNs. Age data were incomplete; 75% of schools reported age for full-time faculty and 65% for part-time faculty.

<sup>c</sup> Data were compiled from the national sample of nursing faculty surveyed by the National Council of State Boards of Nursing in the 2015 Workforce Study. Individuals who reported "faculty" as

their “primary position title” constituted approximately 3.5% of RNs in the U.S. sample. Age data were not adjusted for the one-year difference in category definition.

<sup>d</sup> Data were compiled from Census 2016 American Community Survey (Adults defined as  $\geq 18$ ). [https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml?src=bkmk](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk)

Race/ethnicity Census data were for the total population. Age data were imputed from Census categories. Census data combined graduate degrees.

A review of Table 1 reveals that:

- *More men are entering the nursing profession.* 17% of Arizona nursing students and 10% of Arizona Nursing Faculty are men. Nationally, the Bureau of Labor Statistics (2018) estimates that 10.1% of Registered Nurses are men.
- *Arizona’s nursing students (44%) are as ethnically/racially diverse as Arizona’s general population (44%).* Also, 34% of nursing students are over the age of 30, compared with 32% nationally (National League for Nursing, 2014). Twenty-six (26) percent of Arizona’s nursing faculty belong to an ethnic/racial minority compared to 14% of U.S. nursing faculty.
- *<sup>b</sup>88% of nursing students are under the age of 40 while 64% of Arizona’s nursing faculty are over 40 years.* Because it takes years of experience and education to be qualified to teach, this is not an unexpected finding. However, 16% of Arizona’s nursing faculty are within retirement range (61 years or older); nationally, 25% of nursing faculty are 61 years or older. Fang and Kesten (2017) report that between 2005 and 2015, the average retirement age of nursing faculty increased from a mean of 62.2 to 65.1. This means that more faculty are deferring retirement until later. This deferment has resulted in a larger concentration of older faculty who are poised for retirement by 2025.
- *Arizona’s nursing faculty highest degrees achieved* (Bachelors, 35%; Masters, 58% and Doctorate, 7%) exceed the national average for Bachelors (16%) and Masters (38%), but lag behind in achievement of doctoral degrees (Arizona, 7%; National, 19%).

Key points of Table 1. are displayed in Figures 1 and 2 below.

Figure 1. Arizona Nursing Faculty: Gender Distribution, Age and Educational Attainment

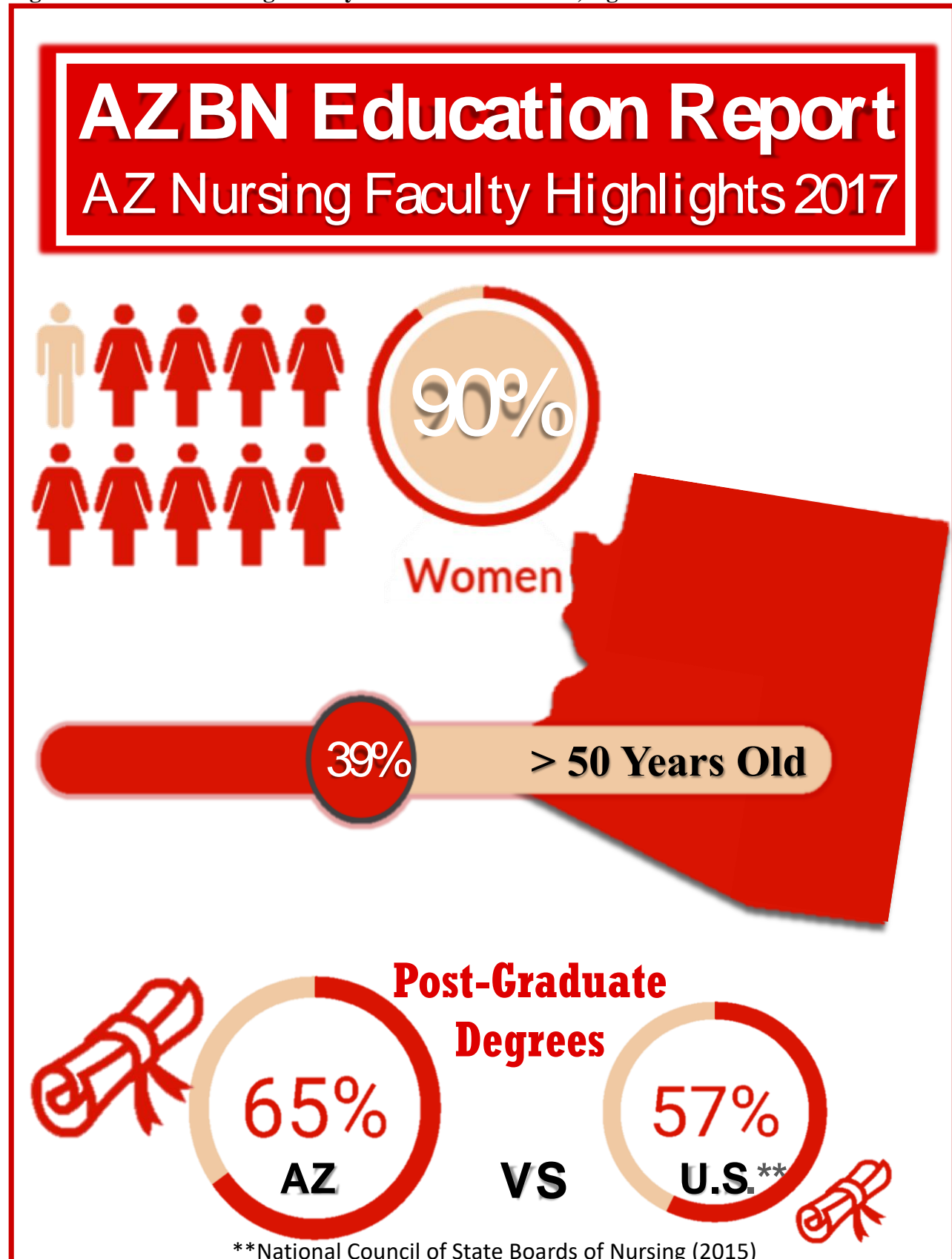
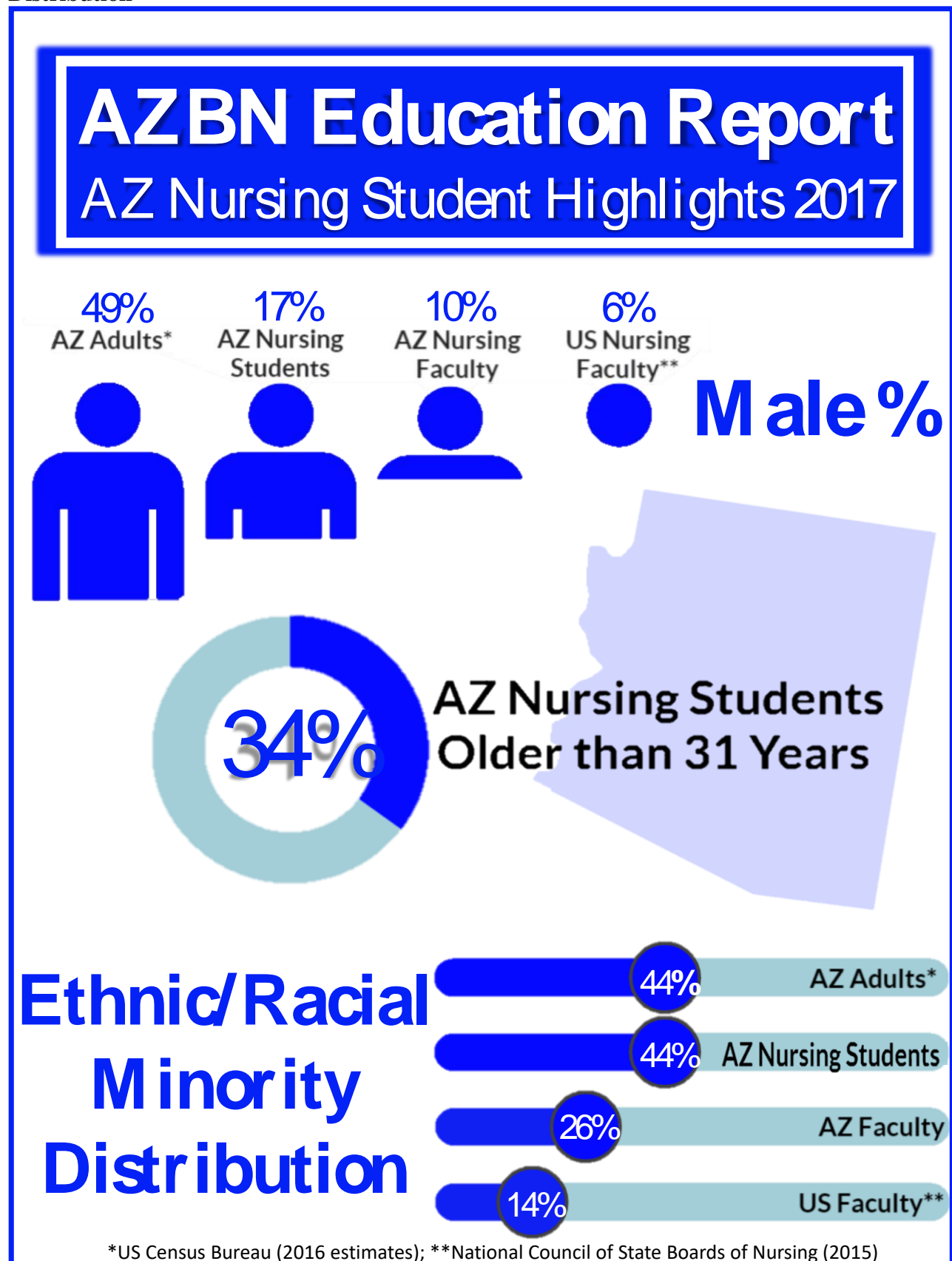




Figure 2. Arizona Nursing Students: Gender Distribution, Age and Ethnic/Racial Minority Distribution



## ARIZONA NURSING PROGRAMS

### *RN Programs*

Table 2. displays a summary of key nursing program characteristics for Arizona schools. Twenty-eight (28) schools are Registered Nurse Programs (8 baccalaureate and 20 associate degree programs). Thirty-five percent (35%) of AD schools have existed for less than 15 years; 50% of BSN schools are younger than 15 years. Most AD schools are public (85%) while most BSN schools are private (62.5%). All BSN schools are accredited as are 85% of AD schools. AD program first time RN-NCLEX pass rate is 91.16% while BSN first time RN-NCLEX pass rate is 84.17%. Conversely, on time graduation rate for Baccalaureate programs is 80.26% and 68.51% for AD programs.

### *PN Programs*

While sixteen (16) of 20 AD schools also offer PN program tracks, data from those schools were not separated from RN students or RN faculty. There is a total of 4 PN-only programs in Arizona (Table 2). Three of the four (75%) PN-only schools are younger than 15 years, 75% are public, none are found in rural communities, none are accredited. PN programs graduate 74.89% of their students on-time with a 90.49% PN-NCLEX first time pass rate.

Figure 3. provides an infographic summary of key findings from Table 2.

**Table 2. Summary of Key Nursing Program Characteristics by RN (AD &BSN) and PN Programs**

Principal Pre-licensure Degree	Number of Schools	Percentage of Programs less than 15 years old	Percentage of Public Schools	Percentage of Rural Schools	Percentage of Schools with Nursing Accreditation (ACEN or CCNE)	Total Number of Pre-licensure Students	Number of Admissions into First Clinical Course	Percentage of Capacity for Admission into First Clinical Course	Total Number of Graduates	Total Full-time and Part-time Faculty	On-time Graduation Rate	NCLEX Pass Rate First Time Takers
ADN	20	35.00	85.00	20.00	85.00	3843	2385	116.85	1681	569	68.51	91.16
BSN	8	50.00	37.50	0.00	100.00	2343	1315	92.80	1437	534	80.26	84.17
TOTAL RN	28	39.29	71.43	14.29	89.29	6186	3700	107.00	3118	1103	73.63	88.01
LPN	4	75.00	75.00	0.00	NA	352	296	80.22	244	44	74.89	90.49
TOTAL	32	43.75	71.88	12.50	NA	6538	3996	104.42	3362	1147	73.71	88.21

For detailed information across demographic variables by school, refer to Tables 3.A, 3.B, 3.C & 3.D. Both Tables 2 and 3.A-D. An Excel version of Table 3.A-D. is posted along with this report on the AZBN website.

**Table 3.A. <sup>1</sup>List of Arizona Pre-Licensure Nursing Programs, PN Option, Program Age and School Type**

School Name	Principal Pre-licensure Degree	Practical Nursing Degree	Age of Program (in Years)	School Type
Arizona College Baccalaureate Nursing Program	BSN	None	3	Private
Arizona State University College of Nursing and Health Innovation	BSN	None	60	Public
Arizona Western College	ADN	PN Option	50	Public
Brookline College of Nursing	BSN	None	7	Private
Carrington College Registered Nursing Program	ADN	PN Option	12	Private
Central Arizona College	ADN	PN Option	46	Public
Chamberlain University College of Nursing	BSN	None	9	Private
Cochise College Nursing Program	ADN	PN Option	53	Public
Coconino Community College	ADN	PN Option	13	Public
East Valley Institute of Technology	LPN	LPN	11	Public
Eastern Arizona College	ADN	PN Option	22	Public
Fortis College - Phoenix	LPN	LPN	7	Private
Grand Canyon University	BSN	None	33	Private
Maricopa Nursing at Chandler-Gilbert Community College	ADN	PN Option	12	Public
Maricopa Nursing at Estrella Mountain Community College	ADN	None	11	Public
Maricopa Nursing at GateWay Community College	ADN	PN Option	55	Public
Maricopa Nursing at GateWay Community College Veteran's LPN Bridge Program	LPN	LPN	15	Public
Maricopa Nursing at Glendale Community College	ADN	PN Option	50	Public
Maricopa Nursing at Mesa Community College	ADN	PN Option	48	Public
Maricopa Nursing at Paradise Valley Community College	ADN	PN Option	13	Public
Maricopa Nursing at Phoenix College Nursing	ADN	PN Option	58	Public
Maricopa Nursing at Scottsdale Community College	ADN	PN Option	46	Public
Mohave Community College Registered Nurse Program	ADN	PN Option	38	Public
Northern Arizona University	BSN	None	34	Public
Northland Pioneer College	ADN	PN Option	25	Public
Pima Community College Associate Degree Nursing Program - West	ADN	PN Option	46	Public
Pima Community College Practical Nursing Program - South	LPN	LPN	User left blank	Public
Pima Medical Institute - Mesa	ADN	None	12	Private
Pima Medical Institute - Tucson	ADN	None	User left blank	Private
The University of Arizona College of Nursing	BSN	None	60	Public
University of Phoenix, College of Health Professions, School of Nursing	BSN	None	User left blank	Private
Yavapai College Nursing Program	ADN	None	48	Public

<sup>1</sup> Non-highlighted schools = Associate Degree programs (with or without a PN option), Blue highlighted schools = BSN, Green highlighted schools = PN programs

**Table 3.B List of Arizona Pre-Licensure Nursing Programs by Location, Location Type and Accreditation/Approval Status**

<b>School Name</b>	<b>Location</b>	<b>Location Type</b>	<b>Accreditation /Approval</b>
Arizona College	Mesa	Metro (city population >100,000)	CCNE
ASU CONHI	Phoenix	Metro (city population >100,000)	CCNE
Arizona Western College	Yuma	Urban (city population 20,001-100,000)	ACEN
Brookline College of Nursing	Phoenix	Metro (city population >100,000)	CCNE
Carrington College	Phoenix	Metro (city population >100,000)	ACEN Conditional
Central Arizona College	Coolidge	Rural (city population 0-20,000)	ACEN
Chamberlain University College of Nursing	Phoenix	Metro (city population >100,000)	CCNE
Cochise College Nursing Program	Douglas	Rural (city population 0-20,000)	ACEN
Coconino Community College	Flagstaff	Urban (city population 20,001-100,000)	AZBON
East Valley Institute of Technology	Mesa	Metro (city population >100,000)	AZBON
Eastern Arizona College	Thatcher	Rural (city population 0-20,000)	ACEN
Fortis College - Phoenix	Phoenix	Metro (city population >100,000)	AZBON
Grand Canyon University	Phoenix	Metro (city population >100,000)	CCNE
MN-Chandler-Gilbert CC	Chandler	Metro (city population >100,000)	ACEN
MN-Estrella Mountain CC	Avondale	Metro (city population >100,000)	ACEN
MN-GateWay CC	Phoenix	Metro (city population >100,000)	ACEN
MN-GateWay CC Veteran's LPN Bridge	Phoenix	Metro (city population >100,000)	AZBON
MN-Glendale CC	Glendale	Metro (city population >100,000)	ACEN
MN-Mesa CC	Mesa	Metro (city population >100,000)	ACEN
MN-Paradise Valley CC	Phoenix	Metro (city population >100,000)	ACEN
MN-Phoenix College	Phoenix	Metro (city population >100,000)	ACEN
MN-Scottsdale CC	Scottsdale	Metro (city population >100,000)	ACEN
Mohave CC	Lake Havasu City	Urban (city population 20,001-100,000)	ACEN
NAU CoN	Flagstaff	Urban (city population 20,001-100,000)	CCNE
Northland Pioneer College	Holbrook	Rural (city population 0-20,000)	ACEN
Pima CC AD-West	Tucson	Metro (city population >100,000)	ACEN
Pima CC PN - South	Tucson	Metro (city population >100,000)	AZBON
Pima Medical Institute - Mesa	Mesa	Metro (city population >100,000)	AZBON
Pima Medical Institute - Tucson	Tucson	Metro (city population >100,000)	AZBON
UA CoN	Tucson	Metro (city population >100,000)	CCNE
UoP SoN	Phoenix	Metro (city population >100,000)	CCNE
Yavapai College	Prescott	Urban (city population 20,001-100,000)	ACEN

**Table 3.C. List of Arizona Pre-Licensure Nursing Programs' Total Number of Students, Admissions, Percentage Capacity and Graduates**

<b>School Name</b>	<b>Total Number of Pre-licensure Students</b>	<b>Number of Admissions into First Clinical Course</b>	<b>Percentage of Capacity for Admission into First Clinical Course</b>	<b>Total Number of Graduates</b>
Arizona College	78	58	38.67	23
ASU CONHI	411	235	122.40	249
Arizona Western College	145	80	100.00	57
Brookline College of Nursing	156	114	95.00	130
Carrington College	148	101	92.66	52
Central Arizona College	109	60	100.00	51
Chamberlain University College of Nursing	394	233	100.00	224
Cochise College Nursing Program	148	100	100.00	64
Coconino Community College	49	30	100.00	17
East Valley Institute of Technology	34	35	140.00	12
Eastern Arizona College	151	98	98.00	53
Fortis College - Phoenix	39	68	70.83	43
Grand Canyon University	566	384	100.00	409
MN-Chandler-Gilbert CC	153	155	193.75	72
MN-Estrella Mountain CC	88	52	108.33	45
MN-GateWay CC	427	219	89.39	205
MN-GateWay CC Veteran's LPN Bridge	204	139	93.92	121
MN-Glendale CC	360	191	100.00	165
MN-Mesa CC	383	195	97.50	162
MN-Paradise Valley CC	112	49	100.00	52
MN-Phoenix College	278	154	96.25	111
MN-Scottsdale CC	278	356	197.78	128
Mohave CC	234	110	161.76	85
NAU CoN	394	178	118.67	140
Northland Pioneer College	100	50	100.00	47
Pima CC AD-West	392	200	200.00	140
Pima CC PN - South	75	54	54.00	49
Pima Medical Institute - Mesa	67	31	100.00	66
Pima Medical Institute - Tucson	48	58	90.63	29
UA CoN	325	104	96.30	208
UoP SoN	19	9	11.25	54
Yavapai College	173	96	100.00	80

**Table 3.D. List of Arizona Pre-Licensure Nursing Programs' Faculty Data, Faculty-Student Ratio, On-time Graduation and NCLEX First-Time Pass Rates**

School Name	Total Number of Full-time Faculty	Percentage of Filled Full-time Faculty Positions	Total Number of Part-time Faculty	Total Number of Faculty	Average Class Faculty-Student Ratio	On-time Graduation Rate	NCLEX Pass Rate First Time Takers
Arizona College	5	100.00	0	5	12	67.86	80.00
ASU CONHI	21	100.00	62	83	30	100.00	92.83
Arizona Western College	7	77.78	10	17	21	66.25	85.71
Brookline College of Nursing	11	100.00	27	38	25	64.06	83.20
Carrington College	4	100.00	11	15	24	62.12	78.95
Central Arizona College	5	100.00	6	11	27	100.00	83.33
Chamberlain University College of Nursing	19	90.48	37	56	30	39.52	87.14
Cochise College Nursing Program	10	90.91	18	28	15	84.38	86.15
Coconino Community College	2	100.00	3	5	30	100.00	88.24
East Valley Institute of Technology	1	100.00	1	2	25	76.92	54.84
Eastern Arizona College	9	100.00	23	32	23	50.00	95.24
Fortis College - Phoenix	3	100.00	4	7	18	45.59	95.83
Grand Canyon University	13	59.09	223	236	24	91.28	75.20
MN-Chandler-Gilbert CC	6	85.71	3	9	20	81.82	92.75
MN-Estrella Mountain CC	5	100.00	26	31	22	75.44	90.00
MN-GateWay CC	25	96.15	72	97	25	58.95	91.74
MN-GateWay CC Veteran's LPN Bridge	6	100.00	14	20	26	100.00	93.01
MN-Glendale CC	14	100.00	72	86	30	78.29	91.43
MN-Mesa CC	16	100.00	23	39	24	65.45	98.30
MN-Paradise Valley CC	5	100.00	15	20	18	69.23	93.88
MN-Phoenix College	14	100.00	20	34	20	58.39	90.91
MN-Scottsdale CC	12	100.00	39	51	21	58.33	97.66
Mohave CC	6	85.71	0	6	28	61.39	96.15
NAU CoN	39	95.12	33	72	30	100.00	91.03
Northland Pioneer College	3	100.00	6	9	24	74.47	89.36
Pima CC AD-West	15	100.00	25	40	27	73.68	89.26
Pima CC PN - South	6	85.71	9	15	14	62.26	97.77
Pima Medical Institute - Mesa	9	100.00	0	9	20	91.94	80.00
Pima Medical Institute - Tucson	5	83.33	6	11	26	78.13	84.00
UA CoN	34	100.00	2	36	18	97.12	93.81
UoP SoN	4	100.00	4	8	10	42.25	83.93
Yavapai College	14	100.00	5	19	20	66.67	90.80

## Historical Data Review

Table 4. displays key nursing education metrics collected for 2014, 2015, 2016 and 2017. The dynamics of fluctuations from year-to-year require a rigorous analysis and will be presented in the future.

**Table 4. Prelicensure Program Key Indicators 2014-2017**

	2014	2015	2016	2017
<b>Total Program Enrollment (RN + PN)</b>				
RN	6929	6740	6568	6186
PN	471	351	293	352
<b>Total RN + PN</b>	<b>7400</b>	<b>7091</b>	<b>6861</b>	<b>6538</b>
<b>Prelicensure Admissions to First Clinical Course</b>				
Associate Degree	2077	2046	2026	2385
Baccalaureate Degree	1735	1565	1491	1315
PN	366	374	372	296
<b>Total RN + PN</b>	<b>3812</b>	<b>3611</b>	<b>3517</b>	<b>3700</b>
<b>Prelicensure Graduates</b>				
RN				
RN Associate Degree	1609	1732	1744	1681
RN Baccalaureate Degree	1378	1510	1381	1437
<b>Total RN Graduates</b>	<b>2987</b>	<b>3242</b>	<b>3125</b>	<b>3118</b>
PN	386	265	278	244
<b>Total Prelicensure Graduates</b>	<b>3283</b>	<b>3507</b>	<b>3403</b>	<b>3362</b>
<b>RN On-time Graduation</b>				
Graduated	2496	2774	3677	2493
Dropped	680	576	513	893
<b>Percentage On-time Graduation</b>	<b>79%</b>	<b>83%</b>	<b>88%</b>	<b>74%</b>
<b>RN NCLEX</b>				
Graduates	2987	3242	3125	3118
Takers	2817	3272	3105	3152
Passers	2535	2853	2677	2774
<b>Percentage passing</b>	<b>90%</b>	<b>87%</b>	<b>86%</b>	<b>88%</b>
<b>Total Pre-licensure Faculty</b>				
Full-time	396	390	384	348
Part-time	821	1123	1206	799
Vacancies: Full time	19	21	25	21
Vacancies: Part-time	14	6	11	13
<b>Average Faculty: Student Ratio in Classroom</b>	<b>1:21</b>	<b>1:21</b>	<b>1:21</b>	<b>1:23</b>

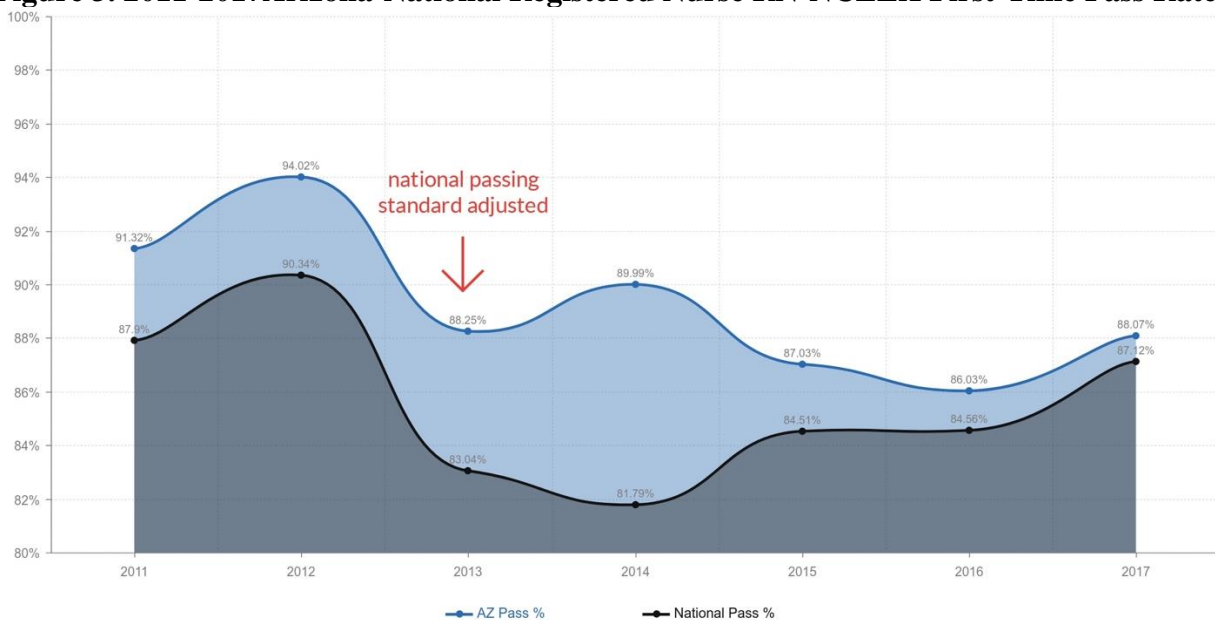
### NCLEX Pass Rates: Arizona and National Comparisons

The NCLEX exam, also known as the National Council Licensure Examination, is a standardized exam that each state board of nursing uses to determine whether or not a candidate is prepared for entry-level nursing practice. Table 5 and Figure 3 display RN-NCLEX National and Arizona 2011-2017 data and Table 6 and Figure 4 illustrate PN-NCLEX data. Arizona nursing graduates have continuously exceeded the national pass rates for both exams during this time period.

**Table 5. 2011-2017 National and Arizona First Time RN-NCLEX First Time Pass Rates**

Year	National Pass Rate	Arizona Pass Rate
2011	87.90%	91.32%
2012	90.34%	94.02%
2013	83.04%	88.25%
2014	81.79%	89.99%
2015	84.51%	87.03%
2016	84.56%	86.03%
2017	87.12%	88.07%

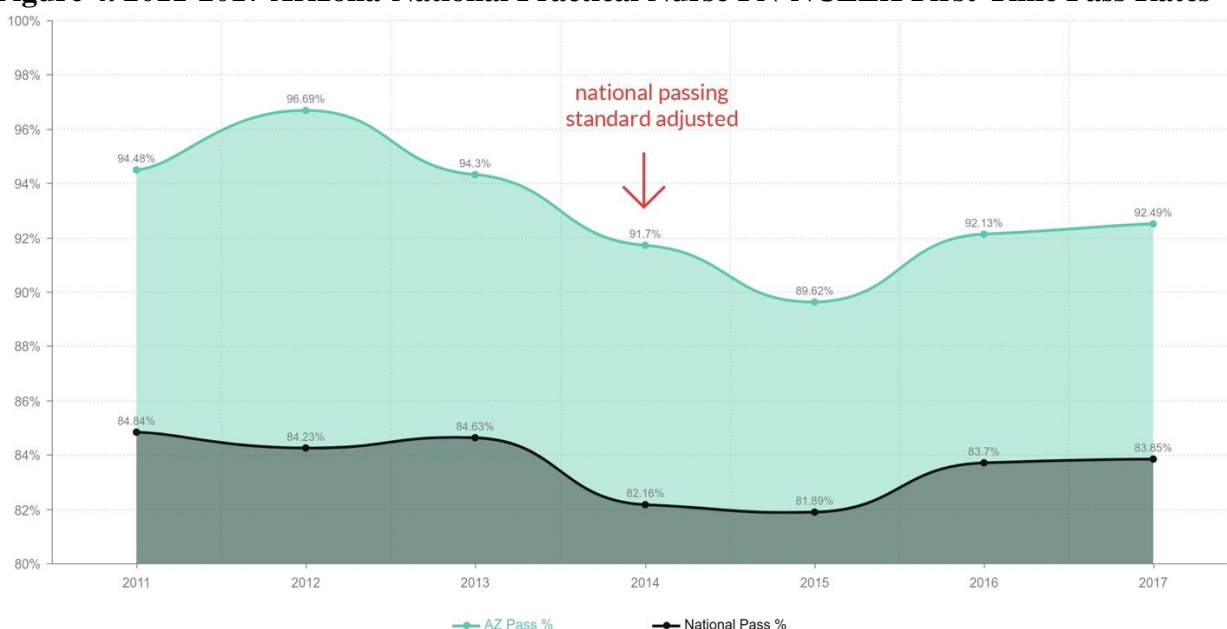
**Figure 3. 2011-2017 Arizona-National Registered Nurse RN-NCLEX First-Time Pass Rates**





**Table 6. 2011-2017 National and Arizona First Time PN-NCLEX First Time Pass Rates**

Year	National Pass Rate	Arizona Pass Rate
2011	84.84%	94.84%
2012	84.23%	96.69%
2013	84.63%	94.30%
2014	82.16%	91.70%
2015	81.89%	89.62%
2016	83.70%	92.13%
2017	83.85%	92.49%

**Figure 4. 2011-2017 Arizona-National Practical Nurse PN-NCLEX First-Time Pass Rates**

Every three years, NCSBN completes a rigorous evaluation of clinical practice changes to determine if a change in the national passing standard is warranted. In 2012, the NCLEX board voted to raise the passing standard starting in 2013 for RN-NCLEX. The passing standard for PN-NCLEX was adjusted in 2014 after review in 2013 (NCSBN, 2018). The RN-NCLEX and PN-NCLEX passing standards have since been re-evaluated but have not been changed. When the standard is adjusted, there is an expected drop in pass rates as is illustrated Figures X and X.

### AZBN Prelicensure Nursing Program Accreditation and Approval

Spector, Hooper, Silvestre and Qian (2018) highlight that most US RN and PN Nursing Programs are regulated (initial and ongoing approval to operate) by their respective state boards of nursing. This regulatory function is imperative in nursing boards' mission to protect the public through quality educational programs. The mission of <sup>2</sup>accrediting bodies is also to assure educational

<sup>2</sup> Currently, two accreditors, The Accreditation Commission for Education in Nursing (ACEN) and the Commission on Collegiate Nursing Education (CCNE) are recognized by the United States Department of Education (USDE). A third entity, the National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA) is seeking recognition by the USDE (Spector et al, 2018).

quality but through a voluntary process. While all US nursing programs are regulated by their state, not all nursing programs are accredited. Some states require accreditation; others do not. However, accreditation requirements in the US may be changing. Spector et al. (2018, p. 25) state that “The 2012 NCSBN (National Council of State Boards of Nursing) Model Rules call for all programs to be accredited by January 1, 2020, to improve education quality and to reduce the burden on BONs and redundancy for nursing programs.” Because of this national discussion about requiring accreditation of nursing programs, a current assessment of accreditation status for the US and Arizona is provided here.

In 2017, Spector and Silvestre conducted an assessment of the number of RN and PN schools that are accredited in the US and US territories. Data from the Spector and Silvestre study were correlated with the 2018 status of states requiring accreditation versus those that do not require accreditation (NCSBN, 2018).

### **Accreditation of RN Programs**

The data displayed in Figure 3. reveal that in 2017, 65% of RN programs were accredited in non-mandatory states and 76% were accredited in mandatory states resulting in a national, overall accreditation rate of 70.5%. 81% of AZ’s RN schools were accredited in 2017; 89.3% are accredited in 2018.

### **Accreditation of PN Programs**

Accreditation of PN programs is less common. 14% of PN programs were accredited in non-mandatory states and 22% were accredited in mandatory states resulting in a national, overall PN program accreditation rate of 17%. None of Arizona’s PN programs were accredited in 2017 or in 2018 (Figure 4).

<sup>3</sup>**Table 7. Percentage of Accredited RN and PN Programs in US States and US Territories**

<b>Program</b>	<b>Non-Mandatory Accreditation States Percentage</b>	<b>Mandatory Accreditation States Percentage</b>	<b>National Percentage</b>	<b>*Arizona Percentage</b>
RN Programs	65%	76%	70.5%	**81%
PN Programs	14%	22%	17%	0%

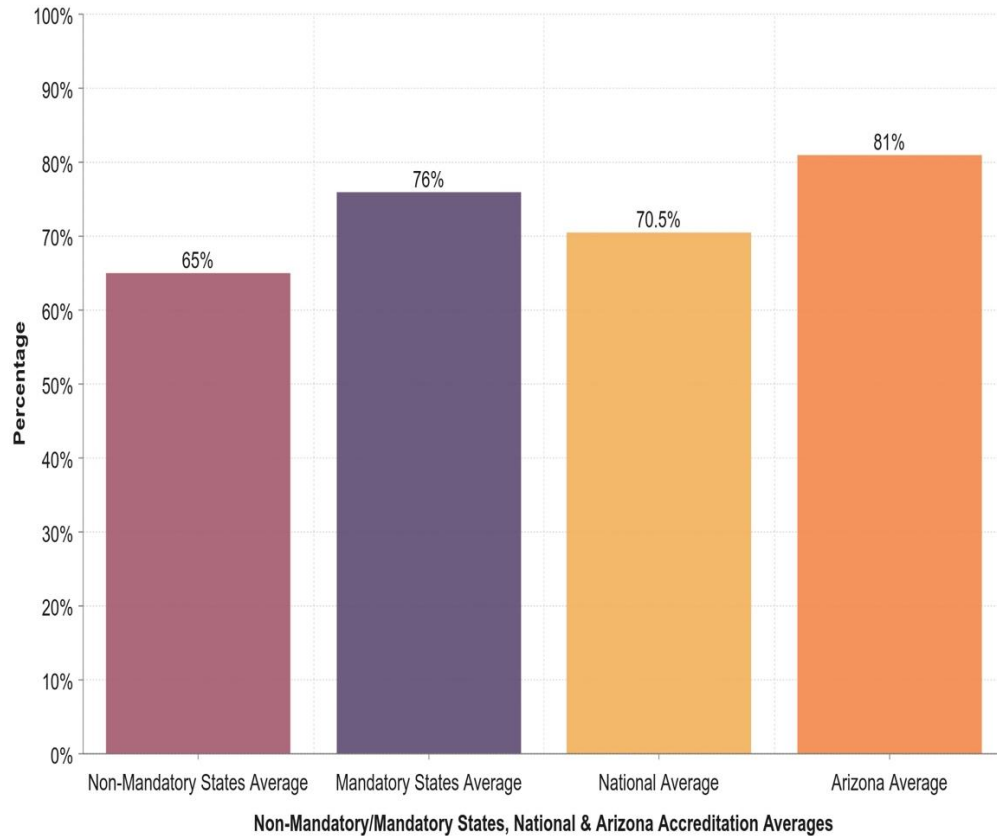
\*Arizona is a non-mandatory accreditation state

\*\*In 2017, 85% of Arizona Associate Degree programs are accredited (ACEN); 100% of Arizona Baccalaureate Programs are accredited (CCNE).

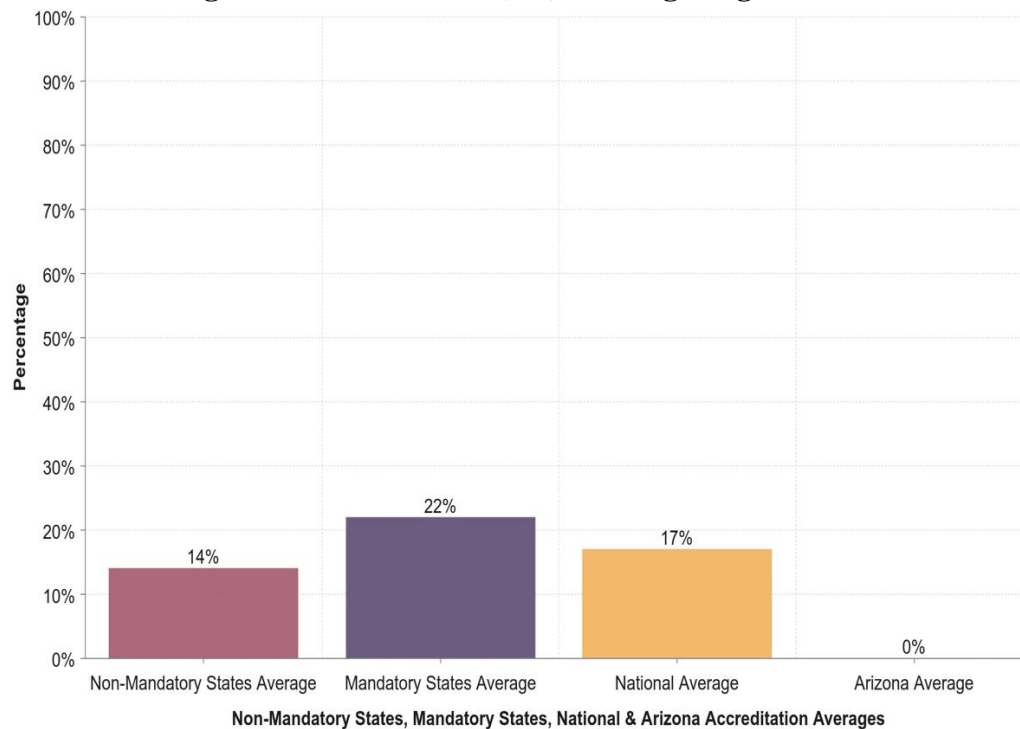
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<sup>3</sup> Data showing the 2017 status of states requiring/not requiring accreditation were not available at this time. The limitation of applying 2018 accreditation requirement status is that a small, undetermined number of states have enacted an accreditation requirement since 2017. Also, states are likely to have provided a window for programs to complete accreditation requirements. The less-than-one-hundred-percent performance found in Table 7 does not represent a compliance issue with state requirements.

**Figure 5. Percentage of Registered Nurse (RN) Nursing Program Accreditation**



**Figure 6. Percentage of Practical Nurse (PN) Nursing Program Accreditation**



## **PART II REPORT PREVIEW**

The second portion of the 2017 Nursing Education Report implements the Board's plan to improve regulatory performance and accountability. It describes the development of comparative performance measurement and benchmarking processes congruent with the objectives of the CORE (NCSBN, 2016) and Regulation 2030 (Benton, 2017) initiatives. It focuses on developing methods for tracking outcomes of nursing education programs and forms the foundation of a more contemporary data and technology driven approach to regulation of nursing education. It includes analyses of the Program Quality Index© (PQI) introduced in the 2014 Education Report (Randolph, 2014) and its relationship to student, faculty, and program characteristics. These analyses focus on identifying the attributes of programs which achieve both high graduation rates and high NCLEX pass rates. Analyses of concurrent enrollment and graduate nursing programs are also incorporated into the overall assessment of the quality of Arizona's nursing education programs.

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## Appendix A

### Definitions/Data Collection Instructions

The items displayed below were provided to the nursing programs for data collection and are a combination of directions and definitions.

#### Section

2.D.	The "First Nursing Clinical Course" is the initial required nursing course with clinical hours allotted (e.g. Fundamentals of Nursing), regardless of the clinical setting.
2.d.1.	Specify the month the in which the first clinical course begins (e.g. January, June, August).
2.G.1	Average faculty to student ratio in didactic courses: Suggested method is to find the mean of your class size per faculty; e.g. class sizes of 15, 40 and 25 would have mean of 26.6 with a ratio of 1:27 (assuming all taught by only one faculty)
3	Article I, R4-19-101: "Nursing program faculty member" means an individual working full or part time within a nursing program who is responsible for either developing, implementing, teaching, evaluating, or updating nursing knowledge, clinical skills, or curricula.
3.a.1.	Input the number of faculty that were provided in the 2016 report (October 15, 2016).
3.a.2.	Input the number of faculty from the October 15, 2016 report who are still employed as of November 1, 2017.
3.a.3.	This number includes all full-time faculty who were hired <b>AND RETAINED</b> between October 15, 2016 and November 1, 2017.
3.a.4.	Input the number of budgeted faculty positions that are unfilled as of November 1, 2017.
3.a.5.	Input the number of full-time faculty who separated (voluntary or involuntary termination) between October 15, 2016 and October 31, 2017.
5.A.	The number of students enrolled in a pre-licensure nursing program.
5.b.3.	Schools may supply age data at whatever point it is collected or easily calculable: age at admission or current age.
6.a.1.	This is the number of separate admission points that your school offers per year. When submitting this data online, the survey will automatically expand to accommodate the number of admission points your school offers per year. For this PDF form, we have accounted for up to 4 admission points per year. If you need more forms feel free to duplicate the page.
6.a.2	Qualified applicants are applicants who met criteria for admission during this admission point.
6.a.3.	The number of students admitted to the program during this admission point.

**Section**

6.a.4.	The number of students registered in the first nursing clinical course. NOTE: This number will be the same as the admissions number for programs with a second admission process (after pre-requisites); it will be different for those programs with direct admissions to both the school and nursing program without pre-requisites to clinical courses.
6.b.1.	This is based on the number of students who tested within calendar year 2017.
6.b.2.	This is the number of graduations that your school completes per year. When submitting this data online, the survey will automatically expand to accommodate the number of graduations your school completes. For this PDF form, we have accounted for up to four graduations per year. If you need more forms, copy and paste below.
6.b.3.	Month of graduation is when a degree/certificate is actually conferred to the student by the school/university (it is not the month of the graduation ceremony).
6.c.1.	This is based on the number of students who tested within calendar year 2017.
6.c.2.	This is the number of graduations that your school completes per year. When submitting this data online, the survey will automatically expand to accommodate the number of graduations your school completes. For this Excel spreadsheet, we have accounted for up to four graduations per year. If you need more forms, copy and paste below.
6.c.3.	Month of graduation is when a degree/certificate is actually conferred to the student by the school/university (it is not the month of the graduation ceremony).